



Sequence ID 149456.00100.ST25.txt  
SEQUENCE LISTING

<110> Remer, Ricardo A  
Margis, Rogerio  
Alves Ferreira, Marcio  
Coronha Lima, Marcia

<120> Pharmaceutical Product Comprising Tissue of the Male  
Vegetal...

<130> 149456.00100

<140> 10/595610

<141> 2006-05-01

<150> PCT/BR04/00100

<151> 2004-11-12

<150> BR PI0305197-8

<151> 2003-11-13

<160> 3

<170> PatentIn version 3.3

<210> 1

<211> 1818

<212> DNA

<213> Artificial

<220>

<223> Complete sequence of the coding region of the AtGRP17  
(4940-5358)

+ (5545-6757) - cDNA

<220>

<221> cDNA

<222> (1)..(1818)

<400> 1

atgagcgaag aactaagtca aaagccatca tcagctcagt ctctgtcact gagagagggc  
60

agaaataggt ttctttttct gtccctgtca cagagagagg gcagattttt tcctttctcta  
120

tctcttttcag agagagatgg aagaaagttt tctttttctca gtatgttctc ttttctcatg

Sequence ID 149456.00100.ST25.txt

180

ccactgttgg aggttattaa gattattatt gcttctgtgg cctccgtaat cttcgtcggt  
240

ttcgctgtg taaccctcgc tggttctgcc gcagcattag tcgtaagcac cccggttttc  
300

atcatattta gtctgttct cgtaccagct acgatagcca cggttgtctt ggcgacagga  
360

ttcacggccg gtggctcttt tggagcgacg gcacttggtc tcatcatgtg gcttgttaag  
420

taagattatt ataacagctt atattgagat cactcgagat ttatgcttaa ttatataata  
480

ttcataaacc tatagtttaa aagtatatg aacttcattt gttaacgtac ttataaata  
540

ttgaacttcg ttcgttttct taattggtct ctaagtatat atacatactt ttttgtgtga  
600

tgcagacgta ggatgggagt aaagccgaag gataatccac ctccggcagg acttccaccg  
660

aattcgggag caggagcagg aggagctcaa agtctgatca aaaagtcaaa ggcaaagtct  
720

aaaggtgggc ttaaggcttg gtgtaagaag atgttaaaaa gttaaattcgg tggtaaaaaa  
780

ggcaagtccg ggggtggaaa aagtaaattt ggaggtaaag gcggtaagtc cgaaggtgaa  
840

gaaggtatgt cgtctgggga tgaaggtatg tctggaagtg aaggaggtat gtccggaggt  
900

gaaggaggt aatccaaaag tggaaaaggt aaactcaaag ctaaactcga aaagaaaaaa  
960

ggtatgtccg gaggtccga gagtgaagaa ggtatgtctg gaagtgaagg aggtatgtct  
1020

ggtggtggag gaagtaaata caaaagtaaa aaaagtaaac tcaaagctaa attgggaaag  
1080

aaaaaaggta tgtccggagg catgtcagga agtgaagaag gtatgtctgg aagtgaagga

Sequence ID 149456.00100.ST25.txt

1140

ggtatgtcca gtggtggagg aagtaaattcc aaaagtaaaa aaagtaaact caaagctaaa  
1200

ttgggaaaga aaaaaggtat gtccggaggc atgtcaggaa gtgaagaagg tatgtctgga  
1260

agtgaaggag gtatgtccgg aggtggagga ggtaaattcca aaagtagaaa aagtaaactc  
1320

aaagctaaat tgggaaagaa aaaatgtatg tccggaggca tgtcaggaag tgaaggaggt  
1380

atgtctggaa gtgaaggagg tatatccgga ggtggtatgt ctgggggcag tggaaagtaa  
1440

cacaaaattg gaggaggtaa acacggagggt cttggaggta aattcggaaa gaaaagaggc  
1500

atgtccgga gtggaggagg catgtcagga agtgaaggag gtgtgtctgg aagtgaagga  
1560

agtatgtctg gaggtggtat gtctgggggt agcggaaagta aacacaaaat tggaggaggt  
1620

aaacacggag gtcttagagg taaattcggga aagaaaagag gtatgtcagg aagtgaagga  
1680

ggtatgtctg gaagtgaagg aggtatgtcg gaaagtggta tgtccgggag tggaggggggt  
1740

aaacacaaaa tcggaggagg taaacacaaa tttggaggag gtaaacacgg aggtggaggt  
1800

ggccacatgg cggagtaa  
1818

<210> 2  
<211> 543  
<212> PRT  
<213> Artificial

<220>  
<223> This protein results from the translation of ATGRP17

<400> 2

Sequence ID 149456.00100.ST25.txt

Met	Ser	Glu	Glu	Leu	Ser	Gln	Lys	Pro	Ser	Ser	Ala	Gln	Ser	Leu	Ser	1	5	10	15
Leu	Arg	Glu	Gly	Arg	Asn	Arg	Phe	Pro	Phe	Leu	Ser	Leu	Ser	Gln	Arg	20	25	30	
Glu	Gly	Arg	Phe	Phe	Pro	Ser	Leu	Ser	Leu	Ser	Glu	Arg	Asp	Gly	Arg	35	40	45	
Lys	Phe	Ser	Phe	Leu	Ser	Met	Phe	Ser	Phe	Leu	Met	Pro	Leu	Leu	Glu	50	55	60	
Val	Ile	Lys	Ile	Ile	Ile	Ala	Ser	Val	Ala	Ser	Val	Ile	Phe	Val	Gly	65	70	75	80
Phe	Ala	Cys	Val	Thr	Leu	Ala	Gly	Ser	Ala	Ala	Ala	Leu	Val	Val	Ser	85	90	95	
Thr	Pro	Val	Phe	Ile	Ile	Phe	Ser	Pro	Val	Leu	Val	Pro	Ala	Thr	Ile	100	105	110	
Ala	Thr	Val	Val	Leu	Ala	Thr	Gly	Phe	Thr	Ala	Gly	Gly	Ser	Phe	Gly	115	120	125	
Ala	Thr	Ala	Leu	Gly	Leu	Ile	Met	Trp	Leu	Val	Lys	Arg	Arg	Met	Gly	130	135	140	
Val	Lys	Pro	Lys	Asp	Asn	Pro	Pro	Pro	Ala	Gly	Leu	Pro	Pro	Asn	Ser	145	150	155	160
Gly	Ala	Gly	Ala	Gly	Gly	Ala	Gln	Ser	Leu	Ile	Lys	Lys	Ser	Lys	Ala	165	170	175	
Lys	Ser	Lys	Gly	Gly	Leu	Lys	Ala	Trp	Cys	Lys	Lys	Met	Leu	Lys	Ser	180	185	190	

Sequence ID 149456.00100.ST25.txt

Lys Phe Gly Gly Lys Lys Gly Lys Ser Gly Gly Gly Lys Ser Lys Phe  
 195 200 205  
 Gly Gly Lys Gly Gly Lys Ser Glu Gly Glu Glu Gly Met Ser Ser Gly  
 210 215 220  
 Asp Glu Gly Met Ser Gly Ser Glu Gly Gly Met Ser Gly Gly Glu Gly  
 225 230 235 240  
 Gly Lys Ser Lys Ser Gly Lys Gly Lys Leu Lys Ala Lys Leu Glu Lys  
 245 250 255  
 Lys Lys Gly Met Ser Gly Gly Ser Glu Ser Glu Glu Gly Met Ser Gly  
 260 265 270  
 Ser Glu Gly Gly Met Ser Gly Gly Gly Gly Ser Lys Ser Lys Ser Lys  
 275 280 285  
 Lys Ser Lys Leu Lys Ala Lys Leu Gly Lys Lys Lys Gly Met Ser Gly  
 290 295 300  
 Gly Met Ser Gly Ser Glu Glu Gly Met Ser Gly Ser Glu Gly Gly Met  
 305 310 315 320  
 Ser Ser Gly Gly Gly Ser Lys Ser Lys Ser Lys Lys Ser Lys Leu Lys  
 325 330 335  
 Ala Lys Leu Gly Lys Lys Lys Gly Met Ser Gly Gly Met Ser Gly Ser  
 340 345 350  
 Glu Glu Gly Met Ser Gly Ser Glu Gly Gly Met Ser Gly Gly Gly Gly  
 355 360 365  
 Gly Lys Ser Lys Ser Arg Lys Ser Lys Leu Lys Ala Lys Leu Gly Lys  
 370 375 380

Sequence ID 149456.00100.ST25.txt

Lys Lys Cys Met Ser Gly Gly Met Ser Gly Ser Glu Gly Gly Met Ser  
385 390 395 400

Gly Ser Glu Gly Gly Ile Ser Gly Gly Gly Met Ser Gly Gly Ser Gly  
405 410 415

Ser Lys His Lys Ile Gly Gly Gly Lys His Gly Gly Leu Gly Gly Lys  
420 425 430

Phe Gly Lys Lys Arg Gly Met Ser Gly Ser Gly Gly Gly Met Ser Gly  
435 440 445

Ser Glu Gly Gly Val Ser Gly Ser Glu Gly Ser Met Ser Gly Gly Gly  
450 455 460

Met Ser Gly Gly Ser Gly Ser Lys His Lys Ile Gly Gly Gly Lys His  
465 470 475 480

Gly Gly Leu Arg Gly Lys Phe Gly Lys Lys Arg Gly Met Ser Gly Ser  
485 490 495

Glu Gly Gly Met Ser Gly Ser Glu Gly Gly Met Ser Glu Ser Gly Met  
500 505 510

Ser Gly Ser Gly Gly Gly Lys His Lys Ile Gly Gly Gly Lys His Lys  
515 520 525

Phe Gly Gly Gly Lys His Gly Gly Gly Gly Gly His Met Ala Glu  
530 535 540

<210> 3  
<211> 1569  
<212> DNA  
<213> Artificial

<220>  
<223> Complete sequence of the promoter region of the AtGRP17

Sequence ID 149456.00100.ST25.txt

<400> 3

acaaagaaat taactatgaa acaatgcttt gtttaaata agtaattaat cggactata  
60

gcgtatatac atagaatgga tccaatttaa ccaaagcaac tgtatgtgac tatgtgaatg  
120

attcaatcgt gagacattga aattgtcgtt tctccattac ctttttggaa gaaaaaccat  
180

cgaaagctag ctaagacttt ttttattaaa cgaacttgct actatttcta tgttttcttt  
240

gaaatgaaaa tttaaattgt tactgtttca cctaaaactc aaaagtattg ctttttaatt  
300

ttattattaa gaaaaactaa tcttatttat gttaagaaac ctgtcaattt ttcattgtta  
360

atttcggctc tataattatt aattaacaat caatttctca aaaattgcaa tcatgattat  
420

gattagatat atattagttg gattgtgatg cattttttgt aatataaaat ggatgtttgt  
480

attagtttct cactcatgta attaaacacc aaatgctaga aactagtact tttgtttctc  
540

agctctcgtc tattgttata tctgcaacac gaacaaaaac cttatctagg tgttatatat  
600

cacggttatg tttatgagtt agaagggatt cttcaacaaa aatcacggaa ctacttgtat  
660

atatgtatgt gtgtatccga tcgaggttga cttccggggt tggacgttga agaagacgaa  
720

ttcattgatt gggcttatat atgggcatgt attacttggg tcaagtttgt aacactttta  
780

gctttttcaa ttctattcga aaccaaata ttgggctata tatctttata caaccttcaa  
840

gataaattgg accaatttta gaagagcaaa ttgaaccggg ccgtagcgt tagccaaacc  
900

ccaactcctt ttcagtacaa ttaaatcaag aatttctaataaat cgtgaa tttctagaca

Sequence ID 149456.00100.ST25.txt

960

tacatatcat aatttcgtca aagcgagcct acacctagtt ttgagctaca taactctttt  
1020

cttttttttt ttatgattag gaggtttcaa aacccttgga cccataattt cttataatta  
1080

gttttgtaat actaaattta ccattgagag cgacctctcg tcactagtaa ttcgaagatc  
1140

tcatattcat gacctatatt aaccatcttc cagtcaagta atttcaatcg aaattcatca  
1200

aaatcatata tttaacttag taatcacata tgatatggct aatatacgta atataacgat  
1260

aaagatttct tcacgctttg atattccata aagcaatgga aatatggaat ggaagaaaac  
1320

atttgaattt tacaagaaac aataaataga aggcctacaa aacatgacaa cccacacaca  
1380

cacacacgaa aagagaaaat ataaagaagg acatgtaacg tgacgtagcg tagatctcca  
1440

ttcactccaa tcgttttgca tggagcatgc atgtgtgtgt accgtgcacg tagtagagac  
1500

cacacaactc cttcataaaa gccctctctc tcttaccatc accaaaacac aacaatccga  
1560

tcagaaaaat  
1569